(Model.)

J. S. BUCK.

Amalgamating Mortar.

No. 235,505. Patented Dec. 14, 1880.

Fig. 1

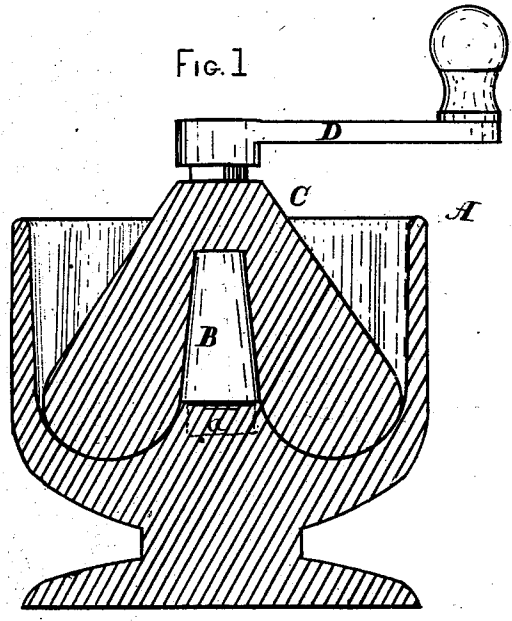
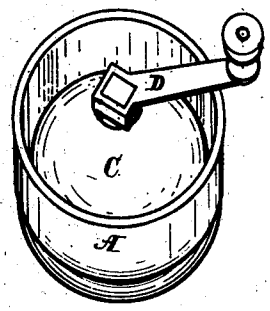


Fig. 2



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UNITED STATES PATENT OFFICE.

JOSHUA S. BUCK, OF OAKLAND, CALIFORNIA.

AMALGAMATING-MORTAR.

SPECIFICATION forming part of Letters Patent No. 235,505, dated December 14, 1880.

Application filed November 22, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOSHUA S. BUCK, of Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Mortars and Amalgamating-Mills, of which the following is a specification, reference being had to the accompanying drawings and the letters marked thereon.

Figure 1 is a sectional elevation of a mortar, showing the same cut through the center; and Fig. 2 is an isometrical perspective bird's-eye view of the same, showing its construction and general arrangement.

My invention relates to improvements in mortars for amalgamating-mills principally; and it consists of a mortar the bottom of which is provided with an upwardly-projecting central shoulder or swell having a socket for the reception of the shouldered lower end of a removable shaft, which is journaled in a central opening in the muller, revolved by suitable mechanism in the mortar, as hereinafter more fully set forth.

A represents the mortar; B, a post or pivot journal; C, the muller; D, the handle or crank.

The following is the construction and operation of the same: The mortar A is of cast-iron or other suitable metal. The muller C is also of the same metal, and the handle is of the usual construction. The bottom of the mortar A is provided with an upwardly-projecting cylindrical central shoulder or swell, having a socket, *a*, for the reception of the lower shouldered end of the journal B, the muller being provided with a central opening or bearing, which receives the journal B.

By this construction the journal B may be removed when worn or broken and another substituted.

My invention is more especially adapted to work in connection with the Robertson process for reducing ores and sulphurets. The ores and sulphurets, after being treated by said process, are disintegrated, and, being placed in the mortar in connection with a sufficient amount of quicksilver for amalgamating with the required amount of water, by revolving the crank it is readily pulverized and thoroughly rubbed and brought in contact with the quicksilver and amalgamated.

By this arrangement much labor is saved, and much more perfect work accomplished than can be effected by the common mortar and pestle. The post B, keeping the muller revolving upon a true center, secures a uniform wear and perfect surface, and renders the rubbing process very complete.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The conical muller C, provided with a continuous opening or journal-bearing, in combination with the mortar A, having the central upwardly-projecting shoulder or swell having a socket, *a*, and the single removable journal B, having a shouldered lower end, substantially as described, and for the purpose set forth.

JOSHUA S. BUCK.

Witnesses:
JOHN H. REDSTONE,
FRANK R. BRAUN.